**9**0/005,684

Filed

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November 8, 2001

IN THE SEQUENCE LISTING:

Please add the attached Sequence Listing pages 1-2.

**REMARKS** 

This Preliminary Amendment brings the patent application into compliance with the Sequence Listing Disclosure requirement of the United States Patent and Trademark Office. Enclosed herewith are: (1) a paper copy of the Sequence Listing, (2) and a computer readable version of the Sequence Listing. The Preliminary Amendment directs entry of the paper copy of the Sequence Listing in to the application. In view of the foregoing, the application is believed

to fully comply with the Sequence Listing Disclosure requirements.

The specification has been amended to include the sequence identification numbers from the sequence listing. Accordingly, no new matter has been added. The specific changes to the specification are shown on a separate set of pages attached hereto and entitled <u>VERSION WITH MARKINGS TO SHOW CHANGES MADE</u>, which follows the signature page of this Notice to Comply. On this set of pages, <u>the insertions are underlined</u> while [the deletions are bolded and

bracketed].

VERIFICATION UNDER 37 C.F.R. § 1.821(f) & (g)

All of the sequences in the attached Sequence Listing were included in the application as filed. Pursuant to 37 C.F.R. § 1.821(g), no new matter is being added herewith. As required under 37 C.F.R. § 1.821(f), I hereby verify that the data on the enclosed disk and the paper

copies of the Sequence Listing are identical.

CONCLUSION

No fees are believed due; however, should any fees be required, please charge them to Deposit Account No. 11-1410. Should there be any questions concerning this application, the

Please charge any additional fees, including any fees for additional extension of time, or

Examiner is respectfully invited to contact the undersigned at the telephone appearing below.

credit overpayment to Deposit Account No. 11-1410.

-3-

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November 8, 2001

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: 25 Jun 2002

By: `

Daniel E. Altman

Registration No. 34,115

Attorney of Record

620 Newport Center Drive

Sixteenth Floor

Newport Beach, CA 92660

(949) 760-0404

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

Paragraph [0013] has been amended as follows:

[0013] For years it has been known that Chlamydia can induce cardiovascular disease in experimental animals. This Chlamydia-mediated heart disease in mice can be induced by antigenic mimicry of a heart muscle-specific protein, thus providing a molecular link between Chlamydia infections and heart disease. Since many infectious agents have been implicated in heart disease, it is not surprising that organisms other than Chlamydia can also supply mimicking epitopes. Indeed, Machmaier, K. et al., in a study published in Nature Medicine in August 2000, screened public databases for proteins sharing the pathogenic mouse M7Aα peptide MA'ST motif (whose amino acid sequence is as follows: SLKLMATLFSTYASA (SEQ ID NO:1)). This motif is found in proteins from a multitude of viruses, bacteria, fungi, and protozoa, which are involved in cardiovascular disease.

Paragraph [0031] has been amended as follows:

[0031] Using phage peptide display library with murine antibody to R4A peptide mimotope for autoantigen was identified. R4A binds to dsDNA and fibronectic and deposits in glomeruli of nonautoimmune mice. The 5-mer peptide DWEYS (SEQ ID NO:2) inhibited binding of R4A to dsDNA as well as binding of R4A to renal tissue. Moreover, when nonautoimmune BALB/C mice were injected with the peptide "DWEYSVWLSN" (SEQ ID NO:3) attached to a polylysine backbone, mice developed lupus-like autoimmunity.

Paragraph [0073] has been amended as follows:

[0073] Myosin pathogenic peptide "SLKLMATLFSTYASA" (SEQ ID NO:1) was synthesized by a robotic multiple peptide synthesizer and resin was used as solid support. Peptide was characterized by reversed-phase HPLC and electrospray mass-spectrometry with purity greater than 80%. This peptide was bound to bovine serum albumin and used for coating microtiter plates.

Paragraph [0080] has been amended as follows:

[0080] Human HSP60 Peptide "AMTIAKNAGEGSLIVEKIM" (SEQ ID NO:4) was synthesized by a robotic multiple peptide synthesizer and resin was used as solid support. Peptide was characterized by reversed-phase HPLC and electrospray mass-spectrometry with

10/005,684

Filed

: November 8, 2001

purity greater than 80%. This peptide was bound to bovine serum albumin and used for coating microtiter plates.

Paragraph [0093] has been amended as follows:

[0093] The following peptides were synthesized by a robotic multiple peptide synthesizer:

|           | Peptide portion                    |
|-----------|------------------------------------|
| Lupus     | SWEYSVWLSN (SEQ ID NO:5) or        |
|           | KARIHPFHILIALETYKTGH (SEQ ID NO:6) |
| Arthritis | LSIALHVGFDHFEQLLSG (SEQ ID NO:7)   |